DOCKET NO. 477 - Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at 46 Cemetery Road, Canterbury, Connecticut.	}	Connecticut
	}	Siting
	}	Council
		February 15, 2018

Opinion

On August 23, 2017, Cellco Partnership d/b/a Verizon Wireless (Cellco) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a 160-foot wireless telecommunications facility located at 46 Cemetery Road in Canterbury, Connecticut. The purpose of the proposed facility is to increase network capacity and provide reliable wireless service to Canterbury and surrounding areas.

The United States Congress recognized a nationwide need for high quality wireless services through the adoption of the Federal Telecommunications Act of 1996 and directed the Federal Communications Commission (FCC) to establish a market structure for system development and develop technical standards for network operations. The FCC preempts state or local regulation on matters that are exclusively within the jurisdiction and authority of the FCC, including, but not limited to, network operations and radio frequency emissions. Preservation of state or local authority extends only to placement, construction and modifications of telecommunications facilities based on matters not directly regulated by the FCC, such as environmental impacts. The Council's statutory charge is to balance the need for development of proposed wireless telecommunications facilities with the need to protect the environment.

Cellco is currently located on five existing telecommunications facilities within a six-mile radius of the proposed site and none of these sites provide adequate, continuous service to the area. The proposed facility would provide an approximate service footprint of 18.8 square miles at 700 MHz, serving the southwest section of Canterbury, eastern portion of Scotland and the northern portion of Sprague where deficient wireless service exists. The proposed site would also enable Cellco to deploy 2100 MHz LTE service to a 3.1 square mile section of Canterbury, where 2100 MHz service is currently lacking. The proposed site would also provide capacity relief of about five percent to Cellco's existing Baltic facility (700 MHz-Alpha sector) which is nearing its capacity limit.

Cellco proposed a new tower facility after determining there were no existing, suitable towers or sufficiently tall structures available within Cellco's search area. A series of small cells in lieu of a tower would not be feasible due to the limited service area of a small cell deployment and the hilly terrain of the proposed service area. For this area, a macrosite deployment is the most efficient and cost effective way to provide the current wireless service need.

A macrosite tower furthers the Council's charge of promoting tower sharing to avoid the unnecessary proliferation of towers in the state as it would be designed to support the co-location of three additional telecommunication carriers, local and regional emergency service antennas, and a 20-foot extension if there is a future need by other wireless carriers for a higher tower height.

The proposed site is located on an approximate 41.8-acre parcel, zoned Rural District, on the north slope of Woodchuck Hill. The parcel is used for agriculture and contains pasture, a residence, several farm outbuildings and a large garage. The parcel is located west of Cemetery Road and is surrounded by residential and agricultural uses, and undeveloped land. Other than the lessor's residence, there are no residences within 1,000 feet of the proposed tower site.

The proposed tower would be located in the southwest corner of the parcel and would consist of a 160-foot monopole, designed to support four levels of antennas. Cellco would install nine panel antennas and nine remote radio heads on a platform at a centerline height of 157 feet above ground level. The overall height of the facility would extend to 160 feet above ground level.

Cellco would establish a 50-foot by 50-foot equipment compound at the base of the tower and install radio equipment on a steel platform within the fenced compound. Access to the compound would utilize an existing paved and gravel driveway for approximately 1,450 feet, and then extend over a new gravel driveway for 320 feet through an open pasture.

Electric service to the compound would extend from an existing high-voltage power supply located adjacent to the existing garage on the property. Telephone service would be installed underground from an existing Eversource utility pole on Cemetery Road, extending west for approximately 860 feet to the garage, following the route of the existing underground high voltage electric service line. From the garage, electric and telephone service to the site would extend south along the existing driveway, then turn west to follow the new access drive to the compound. Although it may be possible to extend the telephone line along the driveway, the landowner prefers that the telephone line be installed adjacent to the existing underground electric line in order to keep all utilities servicing the property from Cemetery Road in one common easement.

No tree clearing would be required to construct the site or install the new telephone line. The nearest wetland to the proposed compound is approximately 45 feet to the southwest, on an abutting private property. This wetland is a forested headwater wetland that extends southward on the abutting property. To protect this resource, the Council will order Cellco to shift the tower/compound approximately 50 feet to the east, thus increasing the buffer between the development area and wetlands.

Installation of the underground telephone line adjacent to the existing underground electrical service would disturb three small, previously disturbed wetland areas. Wetland soils excavated during trenching would be stockpiled, replaced and re-seeded appropriately. Trench plugs would be installed in wetland areas to prevent alteration of subsurface water flows.

The proposed project would be constructed in compliance with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control.*

No records of species listed on the Department of Energy and Environmental Protection's Natural Diversity Database occur in the area. The proposed facility is not located near a National Audubon Society designated Important Bird Area and the design of the proposed facility would comply with United States Fish and Wildlife Service guidelines for minimizing the potential impact of telecommunications towers to bird species.

The tower and new driveway are not in areas determined by the Natural Resources Conservation Service as containing prime agricultural soils. The trench for the proposed telephone service conduit would pass through some prime farmland soils on the eastern portion of the property but this area is not used for agriculture and has been previously disturbed for the installation of electric service to the property.

No historic properties would be affected by the proposed facility. The site development area does not possess the potential for archeological deposits.

The proposed tower would be visible year-round from approximately 119 acres within a two-mile radius of the site, mostly within 0.64 mile of the site. Land use with year-round views consist of open field areas, a small lake (Cranberry Lake) and rural residential areas along Cemetery Road and Bingham Road No. 2 north-northwest of the site, and wooded areas south of the site. Seasonal, leaf-off views would occur from approximately 202 acres within a two-mile radius of the site, mostly limited to an area within 0.8 mile of the site.

There are no state or locally-designated scenic roads or any known "blue blazed" hiking trails maintained by the Connecticut Forest and Parks Association within two miles of the site.

Use of flush-mounted antennas on the tower to reduce the tower antenna visibility profile would not be beneficial due to the fact that a flush-mounted tower design limits the number of antennas at each tower level. For the proposed site, Cellco would need to increase the height of the tower by 20 to 30 feet to accommodate all of their antennas and remote radio units necessary to provide service to this area. Additionally, a flush-mount antenna design would limit the number of antenna collocation opportunities by other carriers and would not be consistent with the state tower sharing policy.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the radio frequency power density levels of Cellco's antennas would be 27.2 percent of the FCC's General Public/Uncontrolled Maximum Permissible Exposure, as measured at the base of the tower. This is conservatively based on all antennas of a given sector pointing down to the ground and emitting maximum power. This percentage is well below federal standards established for the frequencies used by wireless companies. If federal standards change, the Council will require that the facility be brought into compliance with such standards. The Council will require that the power densities be recalculated in the event other carriers add antennas to the tower. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. Regarding potential harm to wildlife from radio emission; this, like the matter of potential hazard to human health, is a matter of federal jurisdiction. The Council's role is to ensure that the tower meets federal permissible exposure limits.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, operation, and maintenance of the telecommunications facility at the proposed site, including effects on the natural environment, ecological balance, public health and safety, scenic, historic, and recreational values, agriculture, forests and parks, air and water purity, and fish, aquaculture and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate to Cellco for the construction, maintenance, and operation of a 160-foot monopole telecommunications facility located at 46 Cemetery Road in Canterbury, Connecticut.